

# RED HORSE

## Explosive Demolition

MSgt Joseph Hajik  
HQ AFCEA/CEXX

"Fire in the Hole — Fire in the Hole — Fire in the Hole" sounds loudly just before a thunderous detonation. Another day at "the office" is underway for the RED HORSE Special Capabilities Cadre located in Area 2, in the high desert area north of Las Vegas, Nev. Providing explosive demolition certification for the entire RED HORSE community who posture the 4F9HJ unit type code is just one of the many mission tasks of the 820th RED HORSE Squadron at Nellis AFB, Nev.

MSgt Thomas Granville and TSgt Mark Ordway currently spearhead this RED HORSE special capability certification course, which packs quite a bit of extensive mathematical calculations, charge size requirement data, proper placement lessons, and — most importantly — safety into its two-week length. Since its maiden class in the mid 1960's the course has had an incident-free history.

Though not commonly associated with typical Air Force Civil Engineering tasks, demolition is a monthly or sometimes weekly recurring ritual for RED HORSE Demo "Dirt Boyz," as they are commonly called. RED HORSE's involvement with explosives dates back to its inception. Documents originating to the mid-1960's identify the need and use of explosives for use in quarry operations, base denial, and removal of large obstacles deterring construction and — believe it or not — removal of underwater debris for dock construction and harbor clearance.

Air Force civil engineer demolition teams are manned purposely using the 3E2X1 AFSC (Pavement and Equipment Operators). These teams are postured with the majority of RED HORSE squadrons across the globe, including Guard and Reserve units. To be indoctrinated into such a team is not easy; a very tough

competition usually occurs within a RED HORSE Dirt Boyz section. In the words of retired CMSgt Gary (Dean) Bushnell, "You better have zero dings in your armor just to be considered." I finally scored a coveted slot in 1994.

CMSgt Bushnell was just one of the many RED HORSE demo team members to venture across the Kuwait border into Iraq during Operation DESERT STORM. A combined effort of "blasters" from the 820th and 823rd and EOD performed base denial upon abandoned Iraqi air bases. The "wrecking crew," as they were coined, was the first RED HORSE team since the Vietnam War to utilize explosives against an adversary during times of war.

SMSgt Bobby Chandler, now retired, recounted the details of that base-denial mission. "It was a textbook operation, with team members using everything from their initial Nellis training, the same skills that are still taught to students to this day."

The most current chapter in the RED HORSE demolition history book was written during Operation IRAQI FREEDOM, when the first-ever RED HORSE combat demolition team was tasked to aid the Army's 99th Engineer Brigade by demolishing two overpasses on Main Supply Route Tampa in the vicinity of Baghdad; the overpasses had been severely damaged in three separate vehicle-borne IED attacks by insurgents. In less than three days, the demo team from the 557th ERHS demolished and removed over 900 tons of debris to restore coalition movement on the supply route.





**Left:** In 1991, during Operation DESERT STORM, CMSgt Dean Bushnell (top left) and SMSgt Bobby Chandler (bottom right) pose with other members of a RED HORSE demo for a pre-mission photo. **Center:** In Iraq in 2007, members of the 557 ERHS demo team place shape charges to demolish an overpass and clear a main supply route. (U.S. Air Force photos). **Right and center of page:** On the RED HORSE demo range at Nellis AFB, Nev., trainees calculate counter-force charge placement. (photos by author)

As RED HORSE evolves, this special demolition capability is evolving with them to enable construction as well. A quarry certification course, tied closely to the demo course, is another special capability taught by the 820 RHS at Nellis. In the near future RED HORSE will be able to posture a deployable Quarry UTC.

The quarry capability enables RED HORSE to self-provide products in order to establish horizontal and vertical construction. For example, to pave a road or build an airfield you need either concrete or asphalt and to obtain that final product in an austere environment you have to start from scratch.

Rock for the desired mix is located, often in the side of a hill, which necessitates a series of demo blast operations to extract the rock. Next comes the rock preparation in several steps, which normally involves crushing into sizes required for particular mix designs. The prepared rock is then transported to one of two batching plants, either for concrete or asphalt, depending on the requirement.

In early 2008, AFCESA's Expeditionary Engineering Branch began developing a series of interactive multimedia training system courses to aid the 820th with training for this demo-quarry-batch (DQB) capability. Scheduled for completion at the end of FY10, the DQB course is just one of the special capability computer-based training venues in the queue for RED HORSE. The DQB training

will not only provide a prerequisite for the initial course at Nellis but will also provide refresher training focused on standards and repetitive commonalities for the RED HORSE warfighter.

As RED HORSE special capabilities strengthen, coordination with the civilian sector becomes more and more relevant. Explosive demolition is commonly utilized worldwide in many capacities by the private sector, and certification for the profession is quite extensive. The military's use of explosives in construction is based upon the worldwide industry standard. As RED HORSE ventures onward toward the deployable quarry capability, many pieces, including certification outside normal military boundaries, may be needed even more.

Within industry, the International Society of Explosive Engineers (ISEE) serves as the governing body for associated standards and certification. At the ISEE's 2010 conference, I met ISEE representatives to communicate the Air Force message and discuss and learn about certification needs, including a newly developed federal certification which is founded upon basic demolition training (usually a state certification).

RED HORSE demolition and quarry training and certification are just two endeavors that will keep us at "the tip of the spear" to remain sharp for our overall mission.

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*MSgt Hajik is the RED HORSE program manager, HQ AFCESA, Tyndall AFB, Fla.*